

Wake County Public School System

Fourth Grade Mathematics Observation Profile  
for On-Going Assessment  
and End-of-the-Year Evaluation

Purpose:

This profile is designed as a recording document for monitoring an individual student’s progress throughout the school year. The information gathered in this document will be used to plan appropriate instruction, to share student progress with parents and to determine progress report levels. The specific objectives from the *North Carolina Standard Course of Study* are clustered on this profile in four quarters.

DIRECTIONS FOR USE:

- ◆ Student’s performance is noted after observing application of the objective on three occasions. Mark the appropriate level (1, 2, 3, 4) for those items that are assessed each quarter.
- ◆ Mark the objective only after the student has demonstrated performance at any level at least three times.
- ◆ Include supporting documentation such as written samples, photos, electronic portfolio, journal entries, teacher observations, formal assessments, and project evaluations (rubrics).
- ◆ Indicate the student’s summative performance level (1, 2, 3, or 4) at the bottom of each column. This score should reflect the student’s overall performance for the quarter.
- ◆ This profile (along with 2-3 work samples) is to be included with the student’s records in the event of transfer or at the end of the year for the next teacher.

Resources:

Grade Four Math Pacing Guide  
Learning and Teaching Guides  
Alignment Lessons  
NC Indicators

Comments:

First Quarter:

Second Quarter:

Third Quarter:

Fourth Quarter:

Descriptions of Levels of Performance

Level 1 (Limited Performance)

- Exhibits minimal performance
- Shows very little evidence of conceptual understanding and use of strategies
- Frequently responds with inappropriate answer and/or procedure
- Very often displays misunderstandings
- Infrequently completes tasks appropriately and accurately
- Needs assistance, guidance and modified instruction

Level 2 (Not yet proficient)

- Exhibits inconsistent performance and misunderstandings at times
- Shows some evidence of conceptual understanding
- Has difficulty applying strategies or completing tasks in unfamiliar situations
- Occasionally responds with the appropriate answer or procedure
- Frequently requires teacher guidance
- Demonstrates some Level 3 competencies but is inconsistent

Level 3 (Proficient)

- Exhibits consistent performance
- Shows conceptual understanding
- Applies strategies in most situations
- Responds with appropriate answer or procedure
- Completes tasks accurately
- Needs minimal assistance
- Exhibits fluency and applies learning
- Shows some flexibility in thinking
- Works with confidence
- Recognizes cause and effect relationships
- Applies models and explains concepts

Level 4 (Exceeds Expectations)

- Consistent performance beyond proficiency
- Works independently
- Understands advanced concepts
- Applies strategies creatively
- Analyzes and synthesizes
- Shows confidence and initiative
- Justifies and elaborates responses
- Makes critical judgments
- Make applications and extensions beyond proficiency; applies Level 3 competencies in more challenging situations

Grade 4 Observation Profile for On-Going Assessment and End of Year Evaluation

1st Quarter Goals and Objectives	
Number and Operations	
1.02	Develop fluency with multiplication and division:
c	Strategies for multiplying and dividing numbers.
e	Relationship between operations.
1.03	Solve problems using models, diagrams, and reasoning about fractions and relationships among fractions involving halves, fourths, eighths; thirds, sixths, twelfths; fifths, tenths, hundredths, and mixed numbers.
1.05	Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.
Measurement	
2.01	Develop strategies to determine the area of rectangles and the perimeter of plane figures.
2.02	Solve problems involving perimeter of plane figures and areas of rectangles.
Geometry	
3.02	Describe the relative position of lines using concepts of parallelism and perpendicularity.
Data Analysis & Probability	
4.01	Collect, organize, analyze, and display data (including line graphs and bar graphs) to solve problems.
4.03	Solve problems by comparing two sets of related data.
4.04	Design experiments and list all possible outcomes and probabilities for an event.
Algebra	
5.01	Identify, describe, and generalize relationships in which:
a	Quantities change proportionally.
b	Change in one quantity relates to change in a second quantity.
5.02	Translate among symbolic, numeric, verbal, and pictorial representations of number relationships.
5.03	Verify mathematical relationships using:
a	Models, words, and numbers.
b	Order of operations and the identity, commutative, associative, and distributive properties.
Overall quarterly performance <input type="checkbox"/>	

2nd Quarter Goals and Objectives	
Number and Operations	
1.01	Develop number sense for rational numbers 0.01 through 99,999.
a	Connect model, number word, and number using a variety of representations.
b	Build understanding of place value (hundredths through ten thousands).
c	Compare and order rational numbers.
d	Make estimates of rational numbers in appropriate situations.
1.02	Develop fluency with multiplication and division:
a	Two-digit by two-digit multiplication (larger numbers with calculator).
b	Up to three-digit by two-digit division (larger numbers with calculator).
c	Strategies for multiplying and dividing numbers.
d	Estimation of products and quotients in appropriate situations.
e	Relationship between operations.
1.05	Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.
Measurement	
2.01	Develop strategies to determine the area of rectangles and the perimeter of plane figures.
2.02	Solve problems involving perimeter of plane figures and areas of rectangles.
Geometry	
3.03	Identify, predict, and describe the results of transformations of plane figures.
a)	Reflections
b)	Translations
c)	Rotations
Data Analysis & Probability	
4.01	Collect, organize, analyze, and display data (including line graphs and bar graphs) to solve problems.
4.03	Solve problems by comparing two sets of related data.
Algebra	
5.02	Translate among symbolic, numeric, verbal, and pictorial representations of number relationships.
5.03	Verify mathematical relationships using:
a	Models, words, and numbers.
b	Order of operations and the identity, commutative, associative, and distributive properties.
Overall quarterly performance <input type="checkbox"/>	

3rd Quarter Goals and Objectives	
Number and Operations	
1.01	Develop number sense for rational numbers 0.01 through 99,999.
a	Connect number sense for rational numbers 0.01 through 99,999.
b	Build understanding of place value (hundredths through ten thousands).
c	Compare and order rational numbers.
1.02	Develop fluency with multiplication and division:
a	Two-digit by two-digit multiplication (larger numbers with calculator).
b	Up to three-digit by two-digit division (larger numbers with calculator).
c	Strategies for multiplying and dividing numbers.
d	Estimation of products and quotients in appropriate situations.
e	Relationships between operations.
1.03	Solve problems using models, diagrams, and reasoning about fractions and relationships among fractions involving halves, fourths, eighths; thirds, sixths, twelfths; fifths, tenths, hundredths, and mixed numbers.
1.04	Develop fluency with addition and subtraction of non-negative rational numbers with like denominators, including decimal fractions through hundredths.
a	Develop and analyze strategies for adding and subtracting numbers.
1.05	Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.
Measurement	
2.01	Develop strategies to determine the area of rectangles and the perimeter of plane figures.
2.02	Solve problems involving perimeter of plane figures and areas of rectangles.
Geometry	
3.03	Identify, predict, and describe the results of transformations of plane figures.
a)	Reflections
b)	Translations
c)	Rotations
Data Analysis & Probability	
4.01	Collect, organize, analyze, and display data (including line graphs and bar graphs) to solve problems.
4.02	Describe the distribution of data using median, range, and mode.
Algebra	
5.01	Identify, describe, and generalize relationships in which:
b	Change in one quantity relates to change in a second quantity.
5.02	Translate among symbolic, numeric, verbal, and pictorial representations of number relationships.
5.03	Verify mathematical relationships using:
a	Models, words, and numbers.
b	Order of operations and the identity, commutative, associative, and distributive properties.
Overall quarterly performance <input type="checkbox"/>	

4th Quarter Goals and Objectives	
Number and Operations	
1.01	Develop number sense for rational numbers 0.01 through 99,999.
b	Build understanding of place value (hundredths through ten thousands).
c	Compare and order rational numbers.
d	Make estimates of rational numbers in appropriate situations.
1.03	Solve problems using models, diagrams, and reasoning about fractions and relationships among fractions involving halves, fourths, eighths; thirds, sixths, twelfths; fifths, tenths, hundredths, and mixed numbers.
1.04	Develop fluency with addition and subtraction of non-negative rational numbers with like denominators, including decimal fractions through hundredths.
a	Develop and analyze strategies for adding and subtracting numbers.
b	Estimate sums and differences.
c	Judge reasonableness of solutions.
1.05	Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.
Measurement	
2.01	Develop strategies to determine the area of rectangles and the perimeter of plane figures.
2.02	Solve problems involving perimeter of plane figures and areas of rectangles.
Data Analysis & Probability	
4.01	Collect, organize, analyze, and display data (including line graphs and bar graphs) to solve problems.
4.02	Describe the distribution of data using median, range, and mode.
4.03	Solve problems by comparing two sets of related data.
4.04	Design experiments and list all possible outcomes and probabilities for an event.
Algebra	
5.01	Identify, describe, and generalize relationships in which:
a	Quantities change proportionally.
Overall quarterly performance <input type="checkbox"/>	